Claims

1. A method for recreating a complex data object having a structure by executing instructions in a suitably programmed digital computer, the method comprising:

reading a persistent representation of the structure of the data object as a sequence of directly executable instructions;

interpreting the instructions as calls to a set of predefined functions;

calling different ones of the predefined functions in accordance with the instructions so as to construct the data object directly from the persistent representation.

2. A method according to claim 1, further comprising displaying the data object to a user.

3. A method according to claim 1, wherein the data object is a multimedia presentation.

4. A method according to claim 1, wherein at least some of the functions have arguments.

5. A method according to claim 4, wherein a call to one of the functions includes a call to another function as an argument of the first function.

6. A method according to claim 4, wherein a call to one of the functions includes obtaining a constant value as its argument.

7. A method according to claim 1, wherein at least some of the functions return an explicit result.

8. A system for recreating a complex data object having a structure, the system comprising:

a persistent representation of the structure of the data object and containing a sequence of executable instructions;

a library having a predefined set of data types and methods for creating complex data objects; and

a program interpreter for executing the instructions as a sequence of calls on the library so as to directly construct the data object.

9. A system according to claim 8, further comprising a display program for presenting the data object to a user.

10. A system for recreating a complex data object from a persistent representation of its structure, the system comprising:

a library having a predefined set of data types and methods for creating complex data objects; and

a program interpreter for interpreting the contents of the persistent representation as a sequence of instructions, and for executing those instructions as a sequence of calls on the API so as to construct the data object directly from the persistent representation.

11. A system according to claim 10, where the data object is a multimedia presentation.

12. A system according to claim 10, where the program interpreter is a virtual machine located in a computer in which the data object is presented to the user.

13. A system according to claim 12, wherein the program interpreter is a stack-based virtual machine.

14. A system according to claim 13, wherein the stack-based virtual machine further includes a temporary storage array.

15. A storage medium containing a persistent representation of the structure of a multi-component data object as a sequence of instructions directly executable on a program interpreter implemented in a digital computer so as to recreate the structure of the multi-component data object.

16. A storage medium according to claim 15, wherein the data object is a multimedia presentation.

17. A storage medium according to claim 15, wherein some of the instructions are compressed identifiers for different ones of a predefined set of methods.

18. A storage medium according to claim 17, wherein others of the instructions are data in different ones of a set of predefined data types.

19. A storage medium containing computer-executable instructions and data for interpreting a persistent representation of a complex data object as a sequence of virtual instructions for directly constructing the data object as a series of calls on a library of predefined functions.

20. A storage medium according to claim 19, wherein some of the virtual instructions represent arguments for others of the instructions.

21. A storage medium according to claim 19, wherein the computer-executable instructions and data implement a stack-based virtual machine.